

IN THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) An air intake control device for an internal combustion engine comprising:

a throttle valve installed in an air intake passage of the engine;

a motor for controlling the throttle valve in response to signals from a control unit, and

a bypass for supplying air ~~to a position~~ downstream from a throttle valve by bypassing the throttle valve[,] when the throttle valve is ~~set at~~ in a mechanically fully closed position,

wherein a throttle valve position for defining a minimum intake air volume under ~~to~~ control ~~an~~ for air intake is formed at a position slightly more open than the mechanically fully closed position of the throttle valve.

2. (currently amended) An air intake control device for an internal combustion engine comprising:

a throttle valve for ~~adjusting~~ controlling an opening area of an air intake passage; and

a motor for controlling the throttle valve in response to signals from a control unit,

wherein a throttle valve position ~~throttle valve~~ defining a minimum intake air volume under control for air intake is formed at a position slightly more open than the mechanically fully closed position of the throttle valve, and

a groove for increasing an air passage area is formed ~~on an air intake wall~~
~~slightly below the fully closed position of said throttle valve for control purposes~~
upstream from the throttle valve position defining the minimum intake air
volume on an interior a wall of the air intake passage, so that the throttle valve
enters into the groove at the mechanically closed position.

3. (currently amended) ~~An~~ The air intake control device for an internal
combustion engine according to Claim 2, wherein ~~a~~ the groove is formed in ~~an~~
the air intake passage so as to increase the volume of air passing through the air
intake passage when the throttle valve has closed ~~opened~~ beyond a
predetermined angle.

4. (currently amended) ~~An~~ The air intake control device for an internal
combustion engine according to Claim 3, wherein ~~a~~ the groove is formed in the
air intake passage so as to maintain a constant volume of air passing through
the air intake passage when the throttle valve has closed ~~opened~~ beyond a
predetermined angle.

5. (currently amended) ~~An~~ The air intake control device for an internal
combustion engine according to Claim 2, wherein a part of the air intake passage
is formed in a spherical form approximate to the rotary locus of the throttle
valve.

6. (currently amended) ~~An~~ The air intake control device for an internal combustion engine according to Claim 3, wherein a part of the air intake passage is formed in a spherical form approximate to the rotary locus of the throttle valve.

7. (currently amended) ~~An~~ The air intake control device for an internal combustion engine according to Claim 4, wherein a part of the air intake passage is formed in a spherical form approximate to the rotary locus of the throttle valve.

8. (currently amended) An air intake control device for a gasoline engine comprising a bypass for supplying air ~~to the position~~ downstream from a throttle valve, bypassing the throttle valve when the throttle valve is in ~~set at~~ a default position, wherein ~~the~~ a throttle valve position for defining a minimum intake air volume ~~to under control the for~~ air intake is formed at a position slightly more open than said default position.

9. (currently amended) ~~An~~ The air intake control device for a gasoline engine according to Claim 8, wherein a groove is formed on an interior ~~the~~ wall surrounding the air intake passage so as to increase the volume of air passing through the air intake passage when the throttle valve has ~~opened from~~ closed beyond the throttle valve position for the minimum intake air volume ~~to control the air intake.~~

10. (currently amended) ~~An~~ The air intake control device for a gasoline engine according to Claim 7, wherein a part of the air intake passage is ~~machined~~ formed in a spherical form approximate to the rotary locus of the throttle valve.

11. (new) A motor-driven throttle device for a diesel engine, wherein a throttle valve is installed in an air intake passage so as to be rotatable in both a clockwise direction and a counterclockwise direction across a position defining a minimum intake air volume; and

a position defining a maximum intake air volume is set at one endpoint of the clockwise and counterclockwise throttle valve rotation range, and a position defining an intermediate intake air volume is set at an opposing endpoint of the range.

12. (new) The motor-driven throttle device for a diesel engine according to claim 11, wherein the throttle device further comprises a return spring for energizing the throttle valve toward the position defining the maximum intake air volume.

13. (new) A motor-driven throttle device for a gasoline engine, wherein a throttle valve is installed in an air intake passage so as to be rotatable in both a

clockwise direction and a counterclockwise direction across a position defining a minimum intake air volume; and

a position defining a maximum intake air volume is set at one endpoint of the clockwise and counterclockwise throttle valve rotation range, and a position defining an intermediate intake air volume is set at an opposing endpoint of the range.

14. The motor-driven throttle device for a gasoline engine according to claim 13, wherein the throttle device further comprises a return spring for energizing the throttle valve toward the position defining the intermediate intake air volume.